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Final Technical Report
ONR Grant # N00014-12-1-0097

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Name and Address of Institution:
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Document Title:

Office of Naval Research (ONR) Support for *R/V Point Sur* Ship Operations – Final Report
Grant Number: N00014-12-1-0097
Grant Period: CY 2011 and CY 2012

Key People Associated with this Grant:

Project Directors:

Mr. Stewart Lamerdin, Marine Superintendent for Moss Landing Marine Laboratories
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Dr. Jim Harvey, Director, Moss Landing Marine Laboratories
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Technical Information and Discussion of Work:

The ONR Ship Operations Award, N00014-12-1-0097, was for *Research Vessel Point Sur* support for the period October 1, 2011 through December 31, 2012. The *R/V Point Sur* is owned by the National Science Foundation (NSF) and operated under a Cooperative Agreement between NSF and the San Jose State University Research Foundation (SJSURF) with Moss Landing Marine Laboratories the performing unit within the university. Moss Landing Marine Laboratories is a consortium campus of the California State University with San Jose State University and SJSURF as the administrative campus. The *R/V Point Sur* is operated as part of the University-National Oceanographic Laboratory System (UNOLS) and adheres to the UNOLS Research Vessel Safety Standards and other Federal requirements for cost accounting and scheduling. The last NSF inspection was successfully completed by NSF and Jamestown Marine Services on May 10, 2012 with the *Point Sur* determined to be in compliance with regulations and required standards. The operational and technical capabilities of the vessel can be viewed at the ship's website:
<http://marineops.mlml.calstate.edu>.

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October 2011 – December 2012

During this period, the *R/V Point Sur* was used to support a series of four cruises for the ONR funded project "*Wave-Current Interactions in Coastal Inlets and River Mouths*" with Dr. Thomas H. Herbers of the Naval Postgraduate School as the Principal Investigator and Chief Scientist for all four cruises. One cruise in October 2011 and three cruises in CY2012 were conducted for a total of 15 days at sea. Mobilization and Demobilization support was provided before and after each cruise in Moss Landing. All costs for the operation of the vessel were included in the budget such as salaries for crew and shore support, overtime, benefits, maintenance, major overhaul, fuel, food, insurance, supplies, technical support and instrumentation, and miscellaneous costs such as security, rent, and utilities.

Each of the cruises in support of this ONR funded project consisted of transit to the entrance to San Francisco Bay (Golden Gate) and back to Moss Landing. While in the waters off the Golden Gate drifting GPS-tracked wave-resolving buoys were deployed to measure surface wave properties in strong tidal currents. The buoys were deployed offshore of the Golden Gate in the outgoing ebb tide. A few bottom tripods with velocity profilers and/or pressure sensors were deployed on the ebb shoal. Additionally, shipboard Acoustic Doppler Current Profiler (ADCP) and Conductivity, Temperature and Depth (CTD) surveys were conducted using MLML supplied instrumentation to measure the vertical structure of the tidal currents and stratification. These cruises were conducted seasonally in October 2011, February 2012, April 2012 and again in October 2012. These cruises were completed successfully and will be followed up with related work in 2013 at the mouth of the Columbia River on the Oregon/Washington border.

Biographical Information for Key Personnel:

Stewart Lamerdin

B.S. Biology, Lewis and Clark College, Portland Oregon, 1992

M.S. Marine Science, Moss Landing Marine Laboratories, 2000

Professional Positions:

- Marine Superintendent, MLML July 2007 – May 2013
- Assistant Marine Supt./Senior Marine Technician, MLML Sept. 2006 – June 2007
- Senior Marine Technician, MLML Aug 1999 – Aug 2006

Jim Harvey

San Jose State University, 1974. B.A., Biology/Marine Biology

MLML, 1979. M.S., Marine Biology

Oregon State University, 1987. Ph.D., School of Oceanography

Professional Positions:

- Director, MLML May 2013 to Present, Interim Director Sept 2011 to May 2013
- Department Chair, MLML 2007 to Aug 2011
- Professor, Associate Professor, Asst. Professor, MLML Jan 1991 to Present